



Superfund At Work

Hazardous Waste Cleanup Efforts Nationwide

Fulton Terminals Site Profile

Site Description:

A tank farm in an urban area of Fulton, in Oswego County, NY

Site Size: 1.6 acres

Primary Contaminants:

Volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and heavy metals (arsenic, barium, chromium, lead)

Potential Range of Health Risks:

Direct contact with contaminants could result in skin irritation and increased risk of cancer

Nearby Population Affected:

13,000 people within three miles

Ecological Concerns:

Contamination of underlying ground water and the nearby Oswego River

Year Listed on NPL: 1983

EPA Region: II

State: New York

Congressional District: 29

Success In Brief

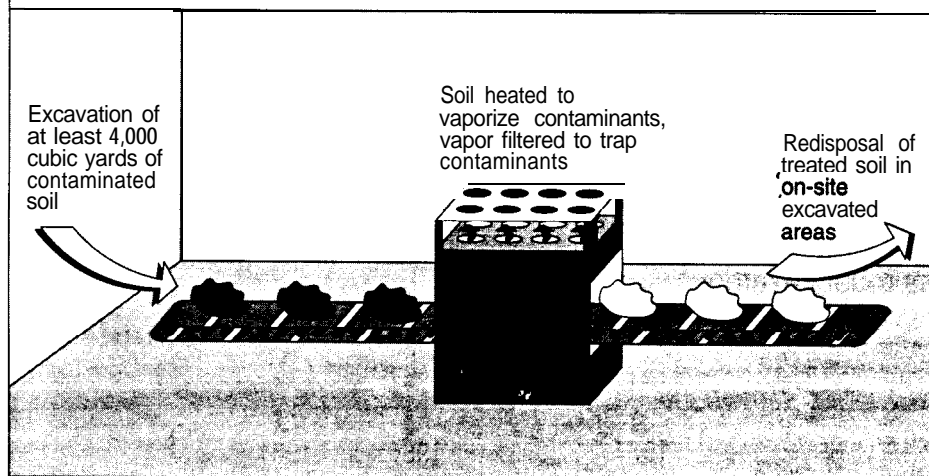
Hazardous Waste Contributors Pay for Fulton Terminals Site Cleanup

The U.S. Environmental Protection Agency (EPA) achieved some unique successes at the Fulton Terminals hazardous waste site in New York. After 35 years as a manufacturing facility, millions of gallons of waste oils and sludges were improperly stored here enroute to an incinerator. Tank leaks and spillage contaminated soil, ground water and the Oswego River. EPA's Superfund program:

- Settled with 59 of 60 hazardous waste contributors to conduct a comprehensive \$4 million cleanup and reimburse EPA \$500,000 for past costs;
- Created an unprecedented financial arrangement that guaranteed payments from both major and minor parties, ensuring the timely cleanup of the site; and
- Worked with area citizens to award a Technical Assistance Grant, ensuring their participation in the selection of the remedy and in the oversight of cleanup operations.

Fulton Terminals is a good example of EPA's responsiveness to community concerns, and illustrates Superfund's diligence in designing equitable arrangements for cleaning up hazardous waste sites.

Fulton Terminals Cleanup Remedy



The Site Today

EPA swiftly reached legal settlements with 59 of the 60 waste contributors and has filed suit against the remaining polluter to recover in excess of \$1 million in past costs.

To date, cleanup efforts have abated surface soil contamination. Activities continue on the site to treat contaminated ground water.

A Site Snapshot

Fulton Terminals is a 1.6-acre tank farm bordering the Oswego River in upstate New York. The site is located in an urban area: about 13,000 people live within three miles.

Millions of gallons of waste oils and sludges were stored in tanks at the site, which is now inactive.

Tank leaks and spillage that occurred while the site was active contaminated the ground water and soil, as well as Oswego River sediments.

The pollutants identified were primarily volatile organic compounds (VOCs), as well as heavy metals (such as arsenic, barium, chromium and lead) and polychlorinated

biphenyls (PCBs). Potential human health effects from direct exposure to these pollutants range from skin irritation to an increased risk of cancer.

While the site has long been surrounded by fences and warning signs, birds and small animals faced potential health effects

from contact with contaminated soil or ground water.

Site runoff periodically subjected the nearby Oswego River to contamination, a potential risk for swimmers and those eating fish from the river.

A municipal water supply serves local residents, so they were not — nor are they now — affected by polluted ground water.

Millions of gallons of waste oils and sludges were stored in tanks at Fulton Terminals

Half a Century's C

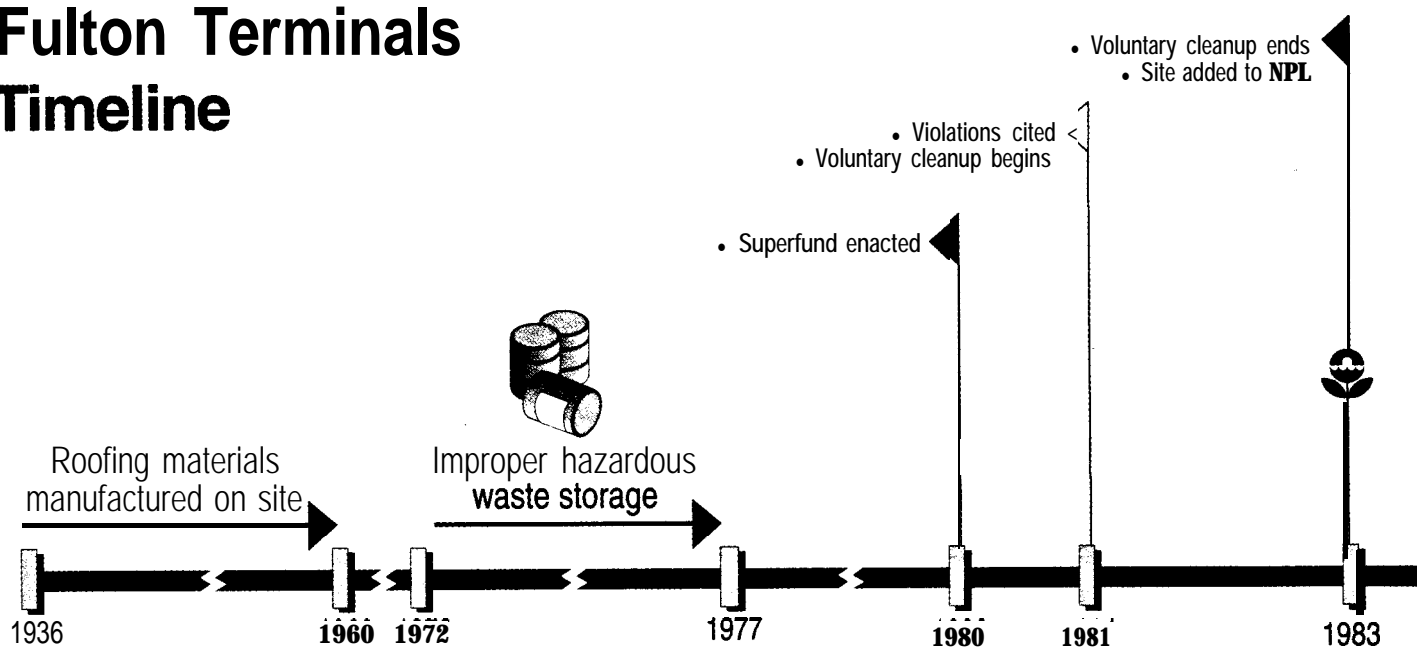
Contamination Begins

Between 1936 and 1960, the primary activity on the site was roofing materials manufacturing with asphalt stored in above-ground tanks and fuel oil in underground tanks.

From 1972 to 1977, Fulton Terminals was a staging and storage area for hazardous waste materials scheduled for incineration at the Pollution Abatement Services site. Both these sites are on the National Priorities List (NPL), EPA's roster of the nation's uncontrolled or abandoned hazardous waste sites. NPL sites are eligible for long-term cleanup under the Superfund program, which Congress enacted in 1980.

In 1981, the owners of Fulton Terminals initiated a voluntary cleanup after receiving a citation

Fulton Terminals Timeline



ntamination to be Cleaned Up

for not meeting federal and state standards for the operation of a hazardous waste storage facility. They emptied and removed four storage tanks, but abandoned the cleanup in 1983 after being fined by the New York State Department of Environmental Conservation (NYSDEC) for using an unlicensed hauler of polychlorinated biphenyls (PCBs). The site was listed on the NPL in 1983.

EPA Protects Natural Resources

When EPA identified obvious soil contamination at Fulton Terminals, investigators quickly determined that site conditions presented an imminent and substantial endangerment. The contamination may have resulted from leaks or spills when the site owners were conducting transfer operations.

In 1986, a Superfund team immediately undertook cleanup actions which:

- Secured the site by installing fences around the contaminated area;
- Excavated and removed about 300 cubic yards of contaminated soil and tar-Like waste;
- Removed all remaining storage tanks; and
- Partially removed and plugged a storm and sewer pipe leading to the Oswego River.

During the emergency removal, EPA obtained the cooperation of all but six of the site polluters to perform some of the cleanup activities.

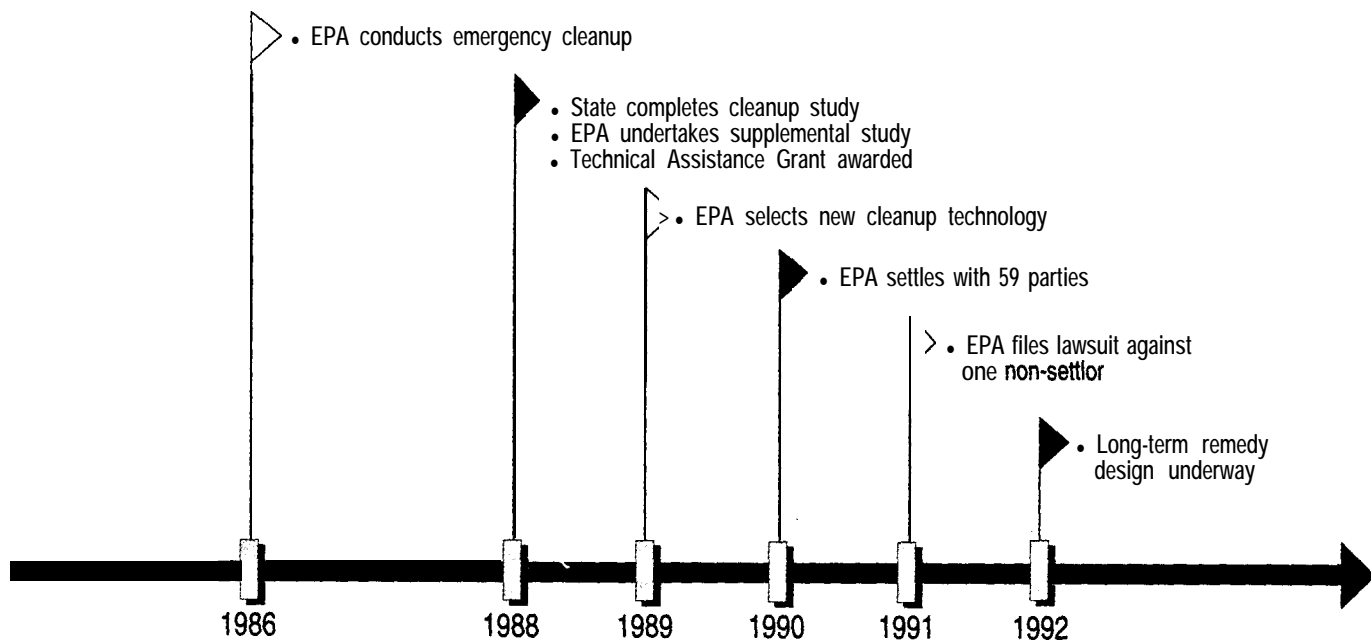
New York State Begins Site Study

After EPA's actions eliminated immediate threats at Fulton

Terminals, the state assumed responsibility for the long-term cleanup. NYSDEC undertook an early study to evaluate site conditions and possible remedies.

In June 1987, NYSDEC released their proposed site cleanup plan calling for Fulton Terminals' hazardous wastes to be excavated and incinerated.

Negative public comments over the incineration proposal led NYSDEC to resample the site. A new report was issued in February 1988 recommending "capping" of site contaminants. Capping involves covering the contaminated area with layers of soil or clay to create a physical barrier against further exposure.



EPA Responds to Community Concerns

In response to public concern over the completeness of the NYSDEC study, EPA decided to take over cleanup activities in 1988 and conducted a supplemental site study.

Superfund investigators worked through the winter months to expedite site sampling. Their extensive analysis effectively complemented the state's existing site information and provided sufficient information for a final remedy selection.



Man and Machine Cleanup often requires a wide array of techniques, from heavy machinery to workers' hands. The cleanup activities at Fulton Terminals included the removal of arsenic, barium, chromium and lead pollutants.

Increased Public Communication: An Important Part of Fulton Terminals Cleanup

Citizens Support EPA's Long-Term Cleanup Plan

During removal activities at the Fulton Terminals site, EPA opened the lines of communication with citizens and involved them in the site study and cleanup process. In July 1989, EPA released the supplemental study results and held a public meeting to discuss its proposed plan for long-term cleanup.

EPA explained the potential cleanup alternatives for the site in a proposed cleanup plan, highlighting the option Superfund preferred. After reviewing public comment on this plan, EPA chose the official site remedy. The selected approach, supported by the comprehensive site studies that preceded it, recommended

treating both contaminated soil and ground water at Fulton Terminals.

About 4,000 cubic yards of soil will be dug up and cleaned. The treatment involves heating the

EPA involved
citizens in
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cleanup process

contaminated soil to vaporize contaminants, which are then collected in specially designed filters. The remaining treated soil will then be put back in the excavated areas on site. The remedy also calls for the long-term extraction and filtration of polluted ground water.

At public meetings, community groups and residents of the area near the Fulton Terminals site were given the opportunity to question EPA representatives about the proposed remedies. They commented on EPA's proposal and endorsed the remedy that **was** selected. Overall, the public expressed satisfaction with EPA's responsiveness at the Fulton Terminals site.

EPA and Area Citizens Work Together For a Cleaner Community

Much of EPA's success in satisfying the community was due to encouragement of citizen involvement. In September 1988, EPA awarded a \$50,000 Technical
continued on page 5

EPA Negotiates Cleanup

For each site listed on the NPL, EPA makes concerted efforts to identify and locate the parties responsible for the site's contamination. EPA notifies these parties of their possible liability and enters into negotiations for the site cleanup. If a settlement cannot be reached, EPA has the statutory authority to conduct the work and then sue for its costs. Polluters that fail to cooperate in good faith face long legal battles as well as significant costs and penalties.

EPA's negotiations at Fulton Terminals were effective and swift. The negotiating team came to terms with 59 parties in record time -only one month. In addition, the team negotiated a complex settlement scheme which assured fairness for "minor" and "major" contributors

Among the 60 parties were

some who contributed relatively minimal amounts of contamination to the site. EPA designed a "two-tiered" settlement approach which allowed for one-time, reasonable payments into a trust fund established for the cleanup.

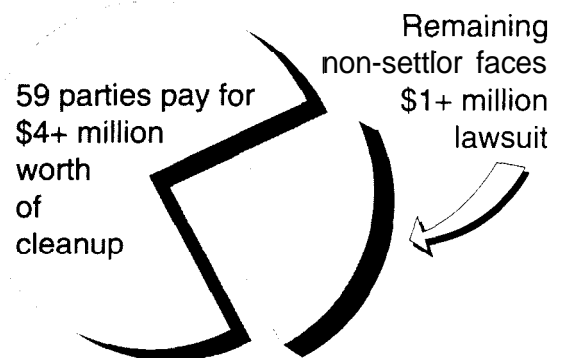
The major contributors then agreed to pay for the remainder of the site cleanup and two years of EPA's oversight costs. The total value of the work to be conducted is estimated at over **\$4 million**.

This approach generated incentives for the parties to settle. The major contributors benefited from the initial, up-front "cash-outs" of minor parties, who were willing to

settle in exchange for protection from further litigation. The pooled resources help to ensure that the cleanup remains on schedule.

EPA is vigorously pursuing the one non-settlor for at least \$1 million in past costs. This case, filed in 1991, is still pending.

It Pays to Cooperate with EPA



Increased Public Communication

continued from page 4

Assistance Grant to the Fulton Safe Drinking Water Action Committee (FSDWAC).

FSDWAC used the grant funds to hire an independent technical advisor. Together, they monitored the planning of the Fulton Terminals cleanup.

A Syracuse newspaper reported EPA as being especially responsive to the group's concerns and quoted the FSDWAC president as

saying, "I think it shows that, if a community and an agency can communicate, a lot of problems can be resolved quite quickly."

"If a community and an agency can communicate, a lot of problems can be resolved quite quickly."

FSDWAC also wrote to EPA's Administrator to express appreciation for the Technical Assistance Grant. He wrote, "It is through this [grant] program, I believe, that you will see a beneficial interaction between those individuals living near or affected by Federal Superfund sites and EPA staff who are, in essence, working toward the same goal. . . . (C)operative efforts expedite remedial efforts."

continued on page 6

Increased Public Communication Defines Fulton Terminals Cleanup

continued from page 5

FSDWAC also complemented EPA's site manager for his efforts in assisting FSDWAC, and on his "sensitivity, commitment and desire to protect human health and the environment."

Community Oversight Enhances Cleanup

FSDWAC used EPA grant resources to photograph the site after a heavy rainstorm. The photos showed standing water where toxic chemicals had been found in the topsoil.

The water that collected then flowed across the street and into the Oswego River. In response

to citizen concerns, EPA built a dirt barrier to prevent rain and melting snow from carrying contaminants off site.

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1

Success at Fulton Terminals

EPA's efforts at the Fulton Terminals site have reduced risk of contamination to the community and the Oswego River.

EPA also recovered some of its past cleanup and oversight costs.

An innovative settlement strategy resulted in over \$4 million worth of cleanup work performed by 59 of the 60 parties responsible for the site.



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